

WHAT IS CLAIMED IS:

1. A process cartridge being freely attachable to and detachable from a main body of an image forming apparatus, the process cartridge comprising a latent image bearing body and a developing device having a developer storage space for storing a developer,

wherein the developer storage space is divided into a first developer storage portion and a second developer storage portion in a vertical direction such that a latent image writing position of the latent image bearing body is interposed between the first developer storage portion and the second developer storage portion, the first developer storage portion and the second developer storage portion communicate with each other through a developer path, and the developer has a compression ratio in a range of 0.30 to 0.40.

2. The process cartridge according to claim 1, wherein the developer has a compression ratio in a range of 0.32 to 0.38.

3. The process cartridge according to claim 1, wherein a toner included in the developer comprises a magnetic powder in an amount of 35 to 55 % by mass.

4. The process cartridge according to claim 1, wherein a toner included in the developer comprises particles selected from the group consisting of silica, aluminum oxide and titanium oxide.

5. The process cartridge according to claim 1, wherein a toner included in the developer has a charge amount in a range of  $-0.3$  to  $-20.0$  ( $\mu\text{C/g}$ ) as measured by a suction method.

6. An image forming apparatus comprising a main body and a process cartridge that is freely attachable to and detachable from the main body, the process cartridge comprising a latent image bearing body and a developing device having a developer storage space for storing a developer,

wherein the developer storage space is divided into a first developer storage portion and a second developer storage portion in a vertical direction such that a latent image writing position of the latent image bearing body is interposed between the first developer storage portion and the second developer storage portion, the first developer storage portion and the second developer storage portion communicate with each other through a developer path, and the developer has a compression ratio in a range of  $0.30$  to  $0.40$ .

7. The image forming apparatus according to claim 6, wherein the developer has a compression ratio in a range of  $0.32$  to  $0.38$ .

8. The process cartridge according to claim 6, wherein a toner included in the developer comprises a magnetic powder in an amount of

35 to 55 % by mass.

9. The process cartridge according to claim 6, wherein a toner included in the developer comprises particles selected from the group consisting of silica, aluminum oxide and titanium oxide.

10. The process cartridge according to claim 6, wherein a toner included in the developer has a charge amount in a range of  $-0.3$  to  $-20.0$  ( $\mu\text{C/g}$ ) as measured by a suction method.

11. An image forming method comprising the steps of:  
forming an electrostatic latent image on a surface of a latent image bearing body;  
developing the electrostatic latent image with a developer in a developing device; and  
transferring a developed toner image onto a transfer body,  
wherein, in the developing device, a developer storage space is divided into a first developer storage portion and a second developer storage portion in a vertical direction, and the first developer storage portion and the second developer storage portion communicate with each other through a developer path, and  
wherein the latent image forming step comprises writing the latent image through a gap between the first developer storage portion and the second developer storage portion, and the developer has a

compression ratio in a range of 0.30 to 0.40.

12. The image forming method according to claim 11, wherein the developer has a compression ratio in a range of 0.32 to 0.38.

13. The process cartridge according to claim 11, wherein a toner included in the developer comprises a magnetic powder in an amount of 35 to 55 % by mass.

14. The process cartridge according to claim 11, wherein a toner included in the developer comprises particles selected from the group consisting of silica, aluminum oxide and titanium oxide.

15. The process cartridge according to claim 11, wherein a toner included in the developer has a charge amount in a range of  $-0.3$  to  $-20.0$  ( $\mu\text{C/g}$ ) as measured by a suction method.

16. An image forming method comprising the steps of:  
forming an electrostatic latent image on a surface of a latent image bearing body;  
developing the electrostatic latent image as a toner image with a developer in a developing device; and  
transferring the developed toner image onto a transfer body,  
wherein:

the transferring step comprises applying a voltage while bringing a transfer member into contact with the transfer body;

the toner comprises toner particles containing a binder resin, 35 to 55% by mass of a magnetic powder having a surface coating of a composite oxide of aluminum and iron, and a releasing agent, and 0.5 to 1.0% by mass of titanium oxide having an average primary particle diameter of 30 to 100 nm as an external additive; and

a mixture prepared by mixing the toner with a carrier in a proportion of 4% by mass relative to the carrier is placed in the developing device, the mixture having a volume resistance of from  $1 \times 10^{15} \Omega \cdot \text{cm}$  to  $5 \times 10^{16} \Omega \cdot \text{cm}$  as measured when a direct current under a voltage of 500 V is applied using a magnetic brush.

17. The image forming method according to claim 16, wherein the magnetic powder comprises a magnetic material selected from the group consisting of iron, cobalt, nickel, alloys thereof,  $\text{Fe}_3\text{O}_4$ ,  $\gamma\text{-Fe}_2\text{O}_3$ , metal oxides, ferrite, magnetite and hematite.

18. The image forming method according to claim 16, wherein the binder resin is at least one of a styrene/acrylic acid copolymer and polyester resin.

19. The image forming method according to claim 16, wherein the toner contains a wax selected from the group consisting of a

hydrocarbon wax, micro-crystalline wax, silicone resin, rosins, ester wax, rice wax, carnaubau wax, Fisher-Tropsch wax, montan wax and candellila wax.

20. The image forming method according to claim 19, wherein the toner contains a coloring agent selected from the group consisting of carbon black, lamp black, ultramarine blue, aniline blue, carcoil blue, methylene blue chloride, copper phthalocyanine, C.I. pigment blue, C.I. pigment green and marlachite green oxalate.